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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,010	02/25/2004	Shinpei Komatsu	614.1639D2DDD1	9725

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EXAMINER	
THAI, TUAN V	

ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/785,010	KOMATSU ET AL.	
	Examiner	Art Unit	
	Tuan V. Thai	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *02 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 08/292,213.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Part III DETAILED ACTION

Response to Amendment

1. This office action is in response to Applicant's communication filed June 02, 2006. This amendment has been entered and carefully considered. Claims 1-6 are presented for examination. Claims 5-6 are newly added. Claim 6 is allowed.

2. Applicant's arguments with respect to claims 1-5 have been considered but they are moot in view of a new ground of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention. The Examiner can not find clear support in the original disclosure matching the scope of the newly added limitation of, "said condition indicating at least whether data evacuation is necessary."

Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tawara et al. (USPN: 4,926,415); hereinafter Tawara, in view of Kosonocky et al. (USPN: 5,361,343); hereinafter Kosonocky.

As per claims 1 and 5, Tawara discloses the invention as claimed including a method of managing a memory device, memory 24 and 18 (e.g. see figure 4) having a memory area and a controller (controller 22/16) for controlling data writing in the memory area (e.g. see figure 4, column 4, lines 28 et seq.), the method comprises sending from the host to the controller a size of data

to be written into the memory area is equivalently taught as a size detection detect a size information which is sent to the CPU 14 (e.g. see column 4, lines 33 et seq.; also see column 8, lines 10 et seq.). Tawara, however does not particularly disclose (a) the memory area comprises at least one flash memory, and (b) causing the controller to estimate a length of time to be required for writing the data into the memory area on a basis of the size/condition of the data of the memory area. First of all, it should be noted that the specific type of the memory area for storing data written therein by the controller does not have a disclosed purpose nor are disclosed to overcome any deficiencies in the prior art. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to implement the said memory to comprise at least one FLASH memory as being claimed for storing the written data, since FLASH or non-volatile memory is known for its versatile in that it eliminates the need for special battery backup circuits to preserve data store therein, therefore being advantageous. Secondly, Kosonocky discloses the other missing element that is known to be required in the system of Tawara in order to arrive at the Applicant's current invention wherein Kosonocky discloses in determining the writing/ programming time based on the size/condition of the data or memory array of flash EEPROM (e.g. see column 2, lines 4 et seq.). Accordingly, it

would have been obvious to one having ordinary skill in the art at the time the current invention was made to utilize the teaching of Kosonocky for that of Tawara system wherein the size/condition of the data is used for determining the writing/programming of the data into the memory. In doing so, it would allow the writing/programming time to be predetermined based on the data size in order to free-up the controller for other activities, it further avoids excess of time allocation in data programming, reduce data fragmentation, therefore being advantageous.

As per claim 2, the further limitation of estimating electric power required for writing the data on a basis of the length of time is taught by the combination of Kosonocky and Tawara to the extent that it is being claimed, since it's further known that time required for writing of data or data programming is also a function and being proportional to the power consumption; by this rationale, claim 2 is rejected.

As per claim 4, it would further obvious to one of ordinary skill in the art to readily recognize that if the data can not be written into the memory for the predetermined or estimated time amount, a malfunction of the memory device must be existed; by this rationale, claim 4 is rejected.

Allowable subject matter

7. Claim 6 is allowed.

8. Claim 3 is objected to as being dependent upon a rejected base claim 2, but would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. The prior art of record do not teach nor disclose checking whether the data can be written into the memory area by using available electric power after the electric power is determined.

9. As to the remark; (a) Applicant's arguments have been considered but they are moot in view of a new ground of rejection. In addition, in considering a 35 USC 103 rejection, it is not strictly necessary that a reference or references explicitly suggest the claimed invention (this is tantamount to a 35 USC 102 reference if the modifications would have been obvious to those of ordinary skill in the art. It has been held that the test of obviousness is not whether the features of a secondary reference may be bodily incorporated into the primary references' structure, nor whether the claimed invention is expressly suggested in any one or all of the references; rather, the test is what the combined teachings of the reference would have suggested to those of ordinary skill in the art. See In re Keller et al., 208 U.S.P.Q 871. In addition, Examiner further recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would

be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). Tawara and Kosonocky references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969. In this case, the Kosonocky reference was used to provide evidence of determining the writing/ programming time based on the size/condition of the data or memory array of flash EEPROM (e.g. see column 2, lines 4 et seq.). The 35 USC § 103 rejection based on said combination is therefore deemed to be proper.

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. ∋ 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. ∋ 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

11. Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see ***http://pair-direct.uspto.gov***. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/August 18, 2006

Tuan V. Thai
PRIMARY EXAMINER
Group 2100